



ALİHAN AKALPER

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📍 Mersin/Türkiye

📅 20.02.2004

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🐙 github.com/AlihanAkalper

EDUCATION

B.Sc. in Computer Engineering

 Middle East Technical University - Northern Cyprus Campus (METU-NCC) 📅 2023 - Present 📍 Kalkanlı, KKTC
Current GPA: **3.83 / 4.00**

Sesim Sarpkaya Science High School

 📅 2018 - 2022 📍 Tarsus, Mersin
Diploma Grade: **97.22 / 100**

TECHNICAL SKILLS

• Programming Languages

C, C++, Python

• Tools

Visual Studio, CLion, PyCharm, Git/GitHub, MATLAB, LTspice

• Operating Systems

Windows, Linux, macOS

PROJECTS

• Airport Flight Departure Scheduling System (C Programming) | Nov 2025 - Dec 2025

- Developed a multi-runway flight scheduling system using Priority Queue and Linked List ADTs to manage high-traffic scenarios.
- Implemented priority-based logic (Emergency, International, Domestic) to optimize runway utilization and minimize flight delays.
- Generated statistical reports on average queue wait times and server efficiency using event-driven simulation.

• Airport Flight Data Management & Analysis System (C Programming) | Dec 2025 - Jan 2026

- Engineered a high-performance data indexing system using AVL Trees to store and query flight records efficiently.
- Achieved $O(\log n)$ search complexity for flight lookups by implementing rotation algorithms to maintain tree balance dynamically during insertions.
- Designed a custom node structure to handle data collisions, allowing multiple flights to be stored under a single destination key.
- Developed analytical features to identify extreme values, such as calculation of the furthest flight destinations based on mileage.

ACHIEVEMENTS

- High Honor List for 3 terms at METU-NCC (Fall 24/25 | Spring 24/25 | Fall 25/26)
- Merit Scholarship Certificate for 2 terms at METU-NCC (Spring 24/25 | Fall 25/26)

LANGUAGES

- Turkish (Native)
- English (Advanced)